

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the above amendments and in light of the following discussion, is respectfully requested.

Claims 1-11 are pending in the application. Claims 1-2 and 4-5 are currently amended. Claims 6-11 are newly presented. Support for the amendment of Claim 1 can be found in the specification as originally filed at paragraphs [0017] and [0032], for example. Support for the amendment of Claims 2 and 4 is self-evident. Support for the amendment of Claim 4 can be found in original Claim 1. Support for the amendment of Claims 5 and 6 can be found in original Claims 1 and 4. Support for new Claim 7 can be found in the specification as originally filed at paragraph [0025], for example. Support for new Claim 8 can be found in the specification as originally filed at paragraph [0013], for example. Support for new Claim 9 can be found in the specification as originally filed at paragraph [0023], for example. Support for new Claims 10-11 can be found in the specification as originally filed at paragraph [0019], for example. No new matter is introduced.

In the outstanding Office Action, Claims 1-4 were rejected under 35 U.S.C. §102(a) as unpatentable over Deplazes et al., (U.S. 2005/0034931, herein “Deplazes”). Claim 5 was rejected under 35 U.S.C. §103(a) as unpatentable over Deplazes in view of Masaru et al. (JP 2002-154774, herein “Masaru”).

The Applicants acknowledge with appreciation the courtesy of Examiner Kewing Chan and Supervisory Patent Examiner (SPE) Walter Benson in conducting a personal interview with the Applicants’ representatives on April 6, 2009. During the interview, the issues in the outstanding Office Action were discussed. In particular, the features of Claims 1 and 4 were discussed with respect to the cited references. The substance of the interview is summarized hereinafter.

Amended independent Claim 1 recites an elevator interlock apparatus including a catch and a latch that engages with the catch when a landing door is in a fully closed state. Amended Claim 1 also recites a release detector that is configured to detect whether or not the latch is in a position engaged with the catch. Furthermore, amended Claim 1 recites that the release detector is provided at the *upper portion of the landing entrance or on a hanger case fixed to the upper portion of the landing entrance*.

Turning to the applied references, Figure 2 of Deplazes illustrates an active sensor part (15) arranged on the elevator car (12).¹ Figure 2 also illustrates a passive sensor part (19) arranged in the region of the shaft door lock (18).² Deplazes describes that the active sensor part (15) comes into interaction with the passive sensor part (19) when the elevator car (12) stops behind the shaft door (11) to be monitored.³ Deplazes further describes that the two sensor parts (15 and 19) are designed such that they interact each time the elevator car (12) moves past a shaft door (11) to be monitored.⁴ However, Deplazes does not suggest or disclose a release detector provided at the upper portion of the landing entrance or on a hanger case fixed to the upper portion of the landing entrance.

As discussed during the personal interview, Deplazes illustrates a passive sensor part (19) located on a shaft door and an active sensor part (15) located on an elevator car. In this configuration, the shaft door lock can be monitored **only when the car door opposes to the shaft door**. By comparison, amended Claim 1 recites that the release detector is provided on the landing entrance or a hanger case fixed to the landing entrance. A passive sensor located on a shaft door that works in conjunction with an active sensor located on a elevator car is not equivalent to a release detector provided on the landing entrance or a hanger case fixed to the landing entrance. As described above, only when the elevator car opposes the shaft door can

¹ See, Deplazes at paragraph [0029].

² See, Deplazes at paragraph [0029] and [0041].

³ See, Deplazes at paragraph [0030].

⁴ See, Deplazes at paragraph [0033].

Deplazes monitor the shaft door lock. Whereas, the release detector of amended Claim 1 may detect latch engagement independently of the position of an elevator car. Accordingly, Deplazes does not suggest or disclose all the features of amended independent Claim 1.

As further discussed during the personal interview, Masaru fails to cure the deficiencies of Deplazes. Figure 1 of Masaru illustrates that a door switch (6) is a first detection means that detects the switching condition of the car stop doors (3a and 3b).⁵ Merely detecting the switching condition is not equivalent to detecting whether or not a latch of a landing door is in a position engaged with a catch of a landing entrance. Accordingly, Masaru does not suggest or disclose all of the features of amended independent Claim 1.

Based on the foregoing, even the combined teachings of Deplazes and Masaru do not suggest or disclose all of the features of amended independent Claim 1. Accordingly, it is respectfully submitted that amended Claim 1 is in condition for allowance.

Dependent Claims 2-11 are respectfully submitted to be in condition for allowance for at least the same reasons as amended independent Claim 1 from which they depend. Moreover, dependent Claims 2-11 recite additional features not suggested or disclosed by the cited references.

For example new dependent Claim 6 recites a fully-closed state detector is configured to detect whether the landing door is the fully-closed state. New Claim 6 also recites that the fully-closed state detector and the release detector are *each provided on the upper portion of the landing entrance or on the hanger case fixed to the upper portion of the landing entrance*.

As discussed above Deplazes describes a passive sensor located on a shaft door and an active sensor located on the elevator car that combine to monitor the shaft door lock. However, Deplazes is silent with respect to a separate fully-closed state detector which is also

⁵ See, Masaru JPO English Translation at paragraph [0009].

provided on the upper portion of the landing entrance or on a hanger case fixed to the upper portion of the landing entrance.

As discussed in the personal interview, Masaru also illustrates a second detection means that emits a photoelectric beam (21) from a light projection means (1).⁶ As can be seen from Figure 1 of Masaru, the light projection means (1) emits the photoelectric beam (21) vertically up the elevator shaft. Masaru describes that when the car stop doors (3a and 3b) are opened engaging rollers (64 and 65) cover the optical path (21) in the middle of opening.⁷ However, as discussed in the personal interview, Masaru does not suggest or disclose a fully closed state detector and a release detector that are each provided on a landing entrance or on a hanger fixed on the landing entrance. Rather, Masaru illustrates a door switch (6) located in the car stop door (30a) and a photoelectric beam (21) that is emitted from a light projection means (1) located at the base of the elevator shaft. By comparison, new Claim 6 recites a fully closed state detector and a release detector each provided on the upper portion of the landing entrance on the hanger case fixed to the upper portion of the landing entrance. A single sensor in a car stop door and a second sensor at the base of the elevator shaft is not equivalent to a pair of detectors each provided on the landing door.

Accordingly, even the combined teachings of Deplazes and Masaru do not suggest or disclose all of the features of new dependent Claim 6.

New dependent Claim 9 recites that the fully closed state detector of a landing door of one of a plurality of floors is configured to detect whether the landing door of the one of the plurality of floors is in the fully closed state *regardless of whether a car is located at the one of the plurality of floors*. As stated above, both Deplazes and Masaru require a car to be present at the floor in order to perform detection. Accordingly, Deplazes and Masaru do not suggest or disclose all of the features of new Claim 9.

⁶ See, Masaru JPO English Translation at paragraph [0009].

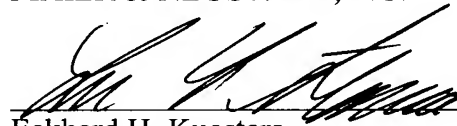
⁷ See, Masaru at the JPO English Translation at paragraph [0011].

For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a notice of allowance for Claims 1-11 is earnestly solicited.

Should Examiner Chan deem that any further action is necessary to place this application in even better condition for allowance, he is encouraged to contact the Applicants' undersigned representative at the below-listed telephone number.

Respectfully submitted,

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